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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TSAI, CAROL S W

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/731,776

Applicant(s)

SWANSON, LEN

Examiner

Carol S. Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/09/2003-20.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9, 11-16, 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 6, 10, 17 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7-9, 11-16, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 6,000,945 to Sanchez-Lazer et al.

Sanchez-Lazer et al. disclose a method of constructing a test, comprising: selecting a test item for inclusion in a set of selected test items (see Abstract, lines 5-6 and col. 3, lines 11-13); updating at least one evaluation statistic based on the selected test item (see col. 1, lines 37-42); and revising the set of selected test items to substantially correlate the at least one evaluation statistic with at least one specification for a test (see col. 3, lines 31-39 and col. 15, line 55 to col. 16, line 17).

As to claim 2, Sanchez-Lazer et al. also disclose the test item being selected at least in part based on a subject matter for the test item (see col. 16, lines 7-9).

As to claims 3 and 4, Sanchez-Lazer et al. also disclose at least one evaluation statistic being selected from a group including content specifications and psychometric specifications (see col. 1, lines 43-63).

As to claim 5, Sanchez-Lazer et al. also disclose the content specifications comprising one or more of the following: a number of test items to be presented in each of one or more pre-determined formats; a total number of test items to be included in the

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set of selected test items; a number of test items for testing each of one or more pre-determined subject matters; a key distribution; a percentage of test items having one or more pre-defined characteristics; a gender or racial orientation of test items; and a language in which the test items are presented (see col. 7, lines 21-28).

As to claims 7, Sanchez-Lazer et al. disclose a method for constructing a test, comprising: selecting a portion of a test item database from which to select a set of test items for a test, wherein the test includes one or more test specifications (see Abstract, lines 5-6; col. 3, lines 7-13; and col. 5, lines 42-46); displaying information concerning a plurality of test items in the selected portion of the test item database (see col. 3, lines 12-19; col. 4, lines 10-12; col. 5, lines 7-9 and lines 46-60; col. 7, lines 21-28; and col. 14, lines 18-37); examining a test item on a display device (see col. 5, lines 7-10 and lines 48-51 and col. 13, line 27 to col. 14, line 4); selecting the test item for the test (see Abstract, lines 5-6 and lines 9-11 and col. 5, lines 46-48); and updating a value for at least one test specification based on specified properties for the selected test item (see col. 3, lines 31-39 and col. 15, line 55 to col. 16, line 17).

As to claim 8, Sanchez-Lazer et al. also disclose selecting a portion of a test item database based on a subject matter for test items contained within the portion of the test item database (see col. 16, lines 7-9).

As to claim 9, Sanchez-Lazer et al. also disclose viewing one or more of the following: an image of the test item; statistical properties of the test item; text passages associated with the test item; an answer key; detailed content specifications; reviewers' comments; scoring guidelines; and artwork associated with the test item (see col. 13, line 27 to col. 14, line 4).

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As to claim 11, Sanchez-Lazer et al. also disclose using item response theory (see col. 8, line 33).

As to claim 12, Sanchez-Lazer et al. also disclose comparing current values for the one or more test specifications with required values for the one or more test specifications (see col. 13, lines 40-41 and col. 20, line 65 to col. 21, line 8).

As to claim 13, Sanchez-Lazer et al. also disclose replacing one or more test items in the set of selected test items based on the one or more updated specifications (see col. 3, lines 31-39 and col. 13, lines 7-15).

As to claims 14 and 15, Sanchez-Lazer et al. disclose adding one or more test items to the set of selected test items based on the one or more updated specifications (see col. 12, lines 53-61).

As to claim 16, Sanchez-Lazer et al. also disclose a system for constructing a test, comprising: containing one or more databases each having a plurality of test items (see Abstract, lines 5-6; col. 3, lines 7-13; col. 5, lines 42-46), wherein each test item comprises: a textual question and one or more answers for the test item (see col. 7, lines 29-63 and col. 8, lines 17-26), a content structure of the test item (see col. 16, lines 40-47), and one or more statistical properties for the test item (see col. 1, lines 61-63; col. 3, lines 8-10; and col. 5, lines 22-38).

Sanchez-Lazer et al. do not disclose expressly a processor and a computer-readable medium operably connected to the processor.

It is, however, considered inherent that Sanchez-Lazer et al. disclose a processor and a computer-readable medium operably connected to the processor (see Abstract, lines 1-2; col. 1, lines 6-8; col. 2, line 60 to col. 3, line 1; col. 3, lines 5-57; and col. 4, line 65

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to col. 5, line 12), because a computer is known to be a necessary device providing a processor, such as central processing unit (CPU) that interprets and executes instruction and a computer-readable medium may include a floppy disk, a flexible disk, hard disk, magnetic tape, or any other magnetic medium, a CD-ROM, any other optical medium, punch cards, paper tape, any other physical medium with patterns of holes, a RAM, a PROM, an EPROM, a FLASH-EPROM, any other memory chip or cartridge, a carrier wave embodied in an electrical, electromagnetic, infrared, or optical signal, or any other medium that can be used in connection with an instruction execution system, apparatus, or device, such as a computer-based system or a processor-containing system.

As to claim 20, Sanchez-Lazer et al. also disclose selecting a test item for inclusion in a set of selected test items (see Abstract, lines 5-6 and col. 3, lines 11-13); updating at least one evaluation statistic based on the selected test item (see col. 1, lines 37-42); and revising the set of selected test items to substantially correlate the at least one evaluation statistic with at least one specification for a test (see col. 3, lines 31-39 and col. 15, line 55 to col. 16, line 17).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanchez-Lazer et al. in view U. S. Patent No. 6,705,870 to Penno.

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As to claim 18, Sanchez-Lazer et al. disclose content specifications for a test (see col. 1, lines 43-63).

Sanchez-Lazer et al. do not disclose psychometric specifications for the test.

Penno teaches psychometric specifications for the test (see col. 3, lines 48-58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sanchez-Lazer et al.'s method to include psychometric specifications for the test, as taught by Penno, in order that accurate and expedient measurement of the combined cognitive and motor ability to follow instructions (see Penno, col. 1, lines 15-16).

#### *Allowable Subject Matter*

5. Claims 6, 10, 17, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kurokawa discloses an electronic learning machine having an input unit for inputting data relating to a specific student.

Koyama et al. disclose a system for carrying out educational management for a

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plurality of students comprising a first processing device for managing a plurality of students and a plurality of second processing devices as a processing device for the student.

Nichols et al. disclose a system that provides a goal based learning system utilizing a rule based expert training system to provide a cognitive educational experience.

Driscoll et al. disclose a computer-based test creation system and method for generating test items.

Cadman et al. disclose an apparatus in the form of a personal computer for conducting a test on a candidate.

Lively, Jr. et al. disclose a method for creating a test for administration to a student includes creating a plurality of test items using a unitary software application. Each test item has a plurality of elements, including an item stem (a question or problem), at least one option (such as a choice of answers, including one correct answer and at least one "distractor" or an open-ended question), and metadata related to the test item.

### ***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for TC



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2800 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (571) 272-1585 or (571) 272-2800.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.



Carol S. W. Tsai  
Patent Examiner  
Art Unit 2857

02/19/05